

Initial Setup

1. Setup Audio Hardware

2. Record & Store Audio
Samples, Metadata

3. Data Labeling

Data Processing

4. Pre-Processing: Frequency
Resampling, Time Cutoff, etc.

5. Create Spectrograms

If Using
Embeddings

6. Generate Embeddings Using
Pre-Trained CNN

7. Create Python Compatible
Labeled Dataset

Create Classifier

8. Build Classifier

8b. Supervised Classifier
Selection

8b. Model Training

8c. Model Evaluation

8d. Model
Tuning/Adjustment

Further Work

9. Implementation

Create Post-Event
Detection System

Create Live
Detection System

Need for
Data

Need for
Tuning

